What is claimed is:

1. A wheel-hub mountable odometer comprising:

an accelerometer comprising sensor means for sensing force, wherein the sensor means are operable to sense a force acting thereon and generate an electrical signal representative of said force sensed by the sensor means, and wherein the signal is proportional to the number of wheel rotations of the wheel.

2. The odometer of claim 1 wherein the accelerometer comprises an electronic accelerometer.

3. The odometer of claim 1 wherein the accelerometer comprises a dual axis accelerometer capable of sensing force along two axes.

4. The odometer of claim 3, wherein the two axis of the accelerometer are offset by 90°.

5. The odometer of claim 1 wherein the odometer further comprises an electronic control system for interpreting the signal from the accelerometer, and calculating wheel rotations.

6. The odometer of claim 5 wherein the electronic control system comprises a microcontroller and power source.

7. The odometer of claim 5 wherein the electronic control system further comprises electronic filters to attenuate irregularities in the accelerometer signal.

8. The odometer of claim 7 wherein the electronic filters comprise an adaptive frequency filter wherein the adaptive frequency is calculated through the use of a digital phase locked loop, and bandpass filter attenuates irregularities in the accelerometer signal due to wheel impacts.

9. The odometer of claim 6 wherein the microcontroller is programmed with power control means to minimize the power consumed by the electronic system.

10. The odometer of claim 5 wherein the odometer further comprises a display in communication with the electronic control system.

11. An odometer communications system comprising the odometer of claim 5 coupled to a communication system operable to communicate odometer information to a remote location.

12. The odometer communications system of claim 11 wherein the communication system further comprises means to communicate instructions to the odometer.

13. The odometer communications system of claim 11 wherein the communication system comprises an IR communication means.

14. The odometer communications system of claim 13 wherein the IR communication means comprises an infrared LED and photosensor coupled to the microcontroller.

15. The odometer communications system of claim 11 wherein the communication system comprises an RF communication system.

16. The odometer communications system of claim 15 wherein the RF communication system comprises an interrogator remote from the wheel, and an RF tag in communication with the microcontroller of the odometer.

17. The odometer communications system of claim 16 wherein the RF communication system comprises an active RF system capable of actively transmitting data from the odometer to the remote interrogator.

18. The odometer communications system of claim 16 wherein the RF communication system comprises an RF backscatter communication system.

19. The odometer communications system of claim 16 wherein the interrogator functionally connected to a wireless network and wherein the odometer data

communicated from the odometer to the interrogator is further communicated to the wireless network.

20. The odometer communications system of claim 16 wherein the interrogator is functionally connected to the Internet.

21. A wheel-hub mountable odometer comprising:

an accelerometer comprising sensor means for sensing force, wherein the sensor means are operable to sense a force acting thereon and generate an electrical signal representative of said force;

an electronic control system comprising a microcontroller and power source, the microcontroller comprising electronic filtering means for attenuating irregularities in the signal from the sensor means and computing a wheel revolution count based on said attenuated signal; and

output means for communicating the wheel revolution count.

22. A method for counting wheel revolutions comprising:

attaching an electronic accelerometer to a wheel, the accelerometer comprising sensor means for sensing a force acting on the accelerometer and generating an electronic signal proportional to the force; and

providing an electronic control system functionally connected to the accelerometer, comprising means for converting the accelerometer signal into a wheel revolution count;

wherein the signal generated by the accelerometer is sent to the electronic control system which computes odometer data comprising the wheel revolution count based on the signal from the accelerometer.

23. The method of claim 22 wherein the accelerometer further comprises a dual axis electronic accelerometer, and said accelerometer senses force along the two axes and generates a electrical signals proportional to the sensed forces.

24. The method of claim 22 further comprising means for communicating the odometer data to a remote location.

25. The method of claim 24 wherein the means for communicating odometer data comprises an RF backscatter communication system.

26. The method of claim 24 wherein the means for communicating odometer data is functionally connected to a network, and said odometer data is communicated to the network and available to a plurality of locations through said network.

27. The method of claim 26 wherein the network comprises a wireless network.

28. The method of claim 27 wherein the network comprises the Internet.